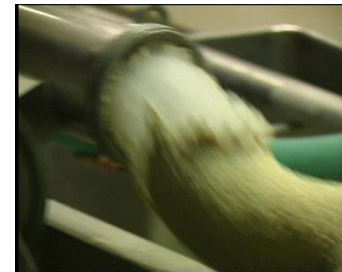
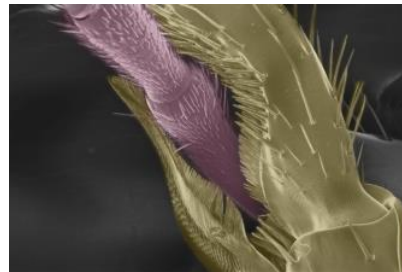


2018 Winter meeting

UKFN Special Interest Group 10

Fluid Mechanics of Cleaning and Decontamination

University of Leeds



Recent Developments

November 2018

EHDG World Congress on Hygienic Engineering & Design, *London*

April 2018

Fouling and Cleaning in Food Processing 2018, Lund

January 2019: Papers published in *Food & Bioproducts Processing*

Removal of thick deposit from pipework and surfaces

Jessica Tuck, Ibrahim Palabiyik, Dick Ward, Bill Gore, Federico Alberini, Peter Fryer

- Procter & Gamble
- School of Chemical Engineering, University of Birmingham



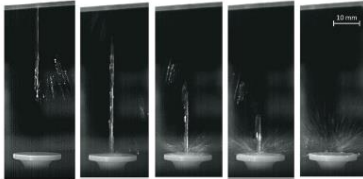


Transactions of the Institution of Chemical Engineers: Part C
ISSN 0966-3085

Food and Bioproducts Processing

Official journal of the European Federation of Chemical Engineering: Part C

Volume 113 January 2019



Special Issue

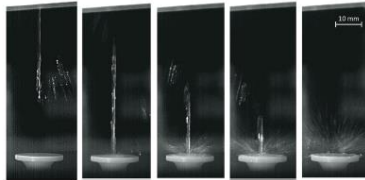
Fouling and Cleaning in Food Processing

www.sciencedirect.com/journal/food-and-bioproducts-processing

Food and Bioproducts Processing

Official journal of the European Federation of Chemical Engineering: Part C

Volume 113 January 2019



Special Issue

Fouling and Cleaning in Food Processing

Editorial

- 1 Fouling and cleaning in food processing 2018
Y.M.J. Chew and D.I. Wilson

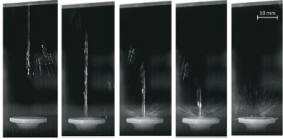
Articles

- 2 Effect of sugar on the fouling behavior of whey protein
B.Y. Zhang, J. Lu and J.-Y. Huang
- 10 Membrane fouling during the fractionation of phytosterols isolated from orange juice
N.H. Abd-Razak, Y.M.J. Chew and M.R. Bird
- 22 Simulation of membrane ageing to go ahead in fouling and cleaning understanding during skim milk ultrafiltration
M. Rabiller-Baudry, P. Thomas, T.K.H. Nguyen, J. Girard, M. El Mansour El Jastimi and P. Loulergue
- 32 Biomimetic surface modifications of stainless steel targeting dairy fouling mitigation and bacterial adhesion
S. Zouaghi, S. Bellayer, V. Thomy, T. Dargent, Y. Coffinier, C. Andre, G. Delaplace and M. Jimenez
- 39 Evaluation of factors influencing dairy biofilm formation in filling hoses of food-processing equipment
O. Fysun, H. Kern, B. Wilke and H.-C. Langowski
- 49 On-line quantification of thickness and strength of single and mixed species biofilm grown under controlled laminar flow conditions
O.P.W. Peck, Y.M.J. Chew and M.R. Bird
- 60 Development of zero discharge net flow fluid dynamic gauging for studying biofilm and spore removal
S. Wang, K. Xu Zhou, G. Christie and D.I. Wilson
- 68 The antimicrobial effect of metal substrates on food pathogens
I.D. Akhidime, F. Saubade, P.S. Benson, J.A. Butler, S. Olivier, P. Kelly, J. Verran and K.A. Whitehead
- 77 Determination of cleaning mechanisms by measuring particle size distributions
N. Gottschalk, L.S. Reuter, S. Zindler, H. Föste, W. Augustin and S. Scholl
- 86 Development of a method to determine normal and shear stress necessary to remove a swollen soil from a surface
R. Murcek, E. Schöhl, H. Köhler, A. Boye and S. Gold
- 93 Enzyme-based integrated solution to cleaning of coconut milk foulants
T. Chutrakul, N. Rangton, R. Daochot, N. Sattayathitikul and P. Saikhwan
- 101 Removal of UHT dairy fouling — An efficient cleaning process by optimizing the rate controlling alkaline cleaning step
C. Hagsten, F. Innings, C. Trägårdh, L. Hamberg, M. Paulsson and T. Nylander

Food and Bioproducts Processing

Official journal of the European Federation of Chemical Engineering Part C

Volume 113 January 2019



Special Issue

Fouling and Cleaning in Food Processing

- | | |
|-----|---|
| 108 | Laboratory methods to predict the cleaning behaviour of egg yolk layers in a flow channel
<i>M. Helbig, S. Zahn, K. Böttcher, H. Rohm and J.-P. Majschak</i> |
| 118 | An investigation in to batch cleaning using wash racks
<i>A. Rodgers, G. de Boer, B. Murray, G. Scott and N. Kapur</i> |
| 129 | Effect of industrial scale stand-off distance on water jet break-up, cleaning and forces imposed on soil layers
<i>E. Fuchs, S. Kricke, E. Schöhl and J.-P. Majschak</i> |
| 142 | Impinging jet cleaning of tank walls: Effect of jet length, wall curvature and related phenomena
<i>M.W.L. Chee, T.V. Ahuja, R.K. Bhagat, N. Taesopapong, S.A. Wan, R.L. Wigmore and D.I. Wilson</i> |
| 154 | Investigation of the cleaning of egg yolk deposits from tank surfaces using continuous and pulsed flows
<i>J. Yang, K. Kjellberg, B.B.B. Jensen, M. Nordkvist, K.V. Gernaey and U. Krühne</i> |
| 168 | Simulation of jet cleaning: Diffusion model for swellable soils
<i>M. Joppa, H. Köhler, S. Kricke, J.-P. Majschak, J. Fröhlich and F. Rüdiger</i> |